

ORIGINAL

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACQ-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 5929 5058
Name: Duke Drilling Co., Inc.
Address 310 West Central
Suite 117
City/State/Zip Wichita, KS 67202
Purchaser: _____
Operator Contact Person: Jim Phillips
Phone (316) 267-1331
Contractor: Name: Duke Drilling Co., Inc.
License: 5929
Wellsite Geologist: Casey Galloway

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SIOW
 Gas ENHR SIGW
 Dry Other (Corp, WSW, Expl., Cathodic, etc.)

If Workover/Re-Entry: old well info as follows
Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____
Deepening _____ Re-perf. _____ Conv. to Inj/SWD _____
Plug Back _____ PSTD _____
Commingled _____ Docket No. _____
Dual Completion _____ Docket No. _____
Other (SWD or Inj?) Docket No. _____
Spud Date 12-01-92 Date Reached TD 12-07-92 Completion Date 1/8/93

API NO. 15- 155-21,235 - 0000
County Reno
NE - NE - SE. Sec. 21 Twp. 25 Rge. 9 E
2310' Feet from N (circle one) Line of Section
330 Feet from W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)
Lease Name Walters/Malm Well # 1-21
Field Name Langdon
Producing Formation Mississippi
Elevation: Ground 1659 KB 1667
Total Depth 4000' PSTD _____
Amount of Surface Pipe Set and Cemented at 226 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set _____ Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sz cat.

Drilling Fluid Management Plan 6414-517
Data must be collected from the Reserve Pit
chloride content 15,000 ppm Fluid volume 340 bbls
Dewatering method used Hauled offsite
Location of fluid disposal if hauled offsite: _____
Operator Name BULLSEYE ROUSTABOUT SERVICE, INC.
Lease Name CLARK SWD License No. 31056
NW Quarter Sec. 10 Twp. 26 Rge. 12 E/W
County Pratt Docket No. D-21-401

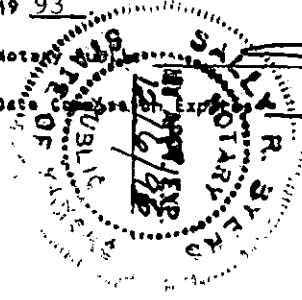
RECEIVED
KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION
WICHITA, KS
MAR 10 1993

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-6 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature James T. Hens
Title Vice President Date 1/3/93

Subscribed and sworn to before me this 3rd day of January 19 93
Notary Public Sally A. Byers
December 6, 1996



K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
KCC SWS/Rep NSPA
KGS Plug Other (Specify)

PI

Operator Name Duke Drilling Co., Inc. Lease Name Walters/Malm Well # 1-21
 Sec. 21 Twp. 25 Rge. 9 East County Reno
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 (Attach Additional Sheets.)
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No
 Electric Log Run Yes No
 (Submit Copy.)
 List All E.Logs Run:

Name	Formation (Top), Depth and Datum		Sample
	Top	Datum	
Heebner	3151'	-1484'	
Lansing	3360'	-1665'	
Hushpuckney	3657'	-1990'	
Base K.C.	3712'	-2045'	
Cherokee	3817'	-2150'	
Mississippi	3840'	-2173'	
Kinderhook	3924'	-2257'	

CASING RECORD

New Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/2"	8-5/8"	20#	226'	60/40 poz	160	2% gel 3% cc
Production	7-7/8"	5 1/2"	15.5#	3998'	Surfill	175	5#Kolseal/sx

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose: ____ Perforate ____ Protect Casing ____ Plug Back TD ____ Plug Off Zone	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type	Acid, Fracture, Shot, Cement Squeeze Record	
	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth
4	3840'-3846'	500 gal. 7 1/2% HCL	3840'
		1500gal. 7 1/2% HCL 73%HF last	
		75 gal.	3840'

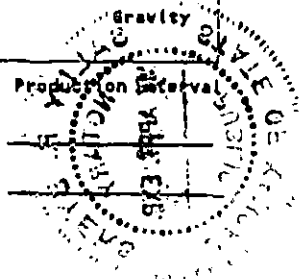
TUBING RECORD	Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Date of First, Resumed Production, SWD or Inj.]	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)							
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas:

Vented Sold Used on Lease
 (If vented, submit ACO-18.)

METHOD OF COMPLETION

Open Hole Perf. Dually Comp. Commingled
 Other (Specify) _____



OPERATOR'S FILE COPY

Kcc

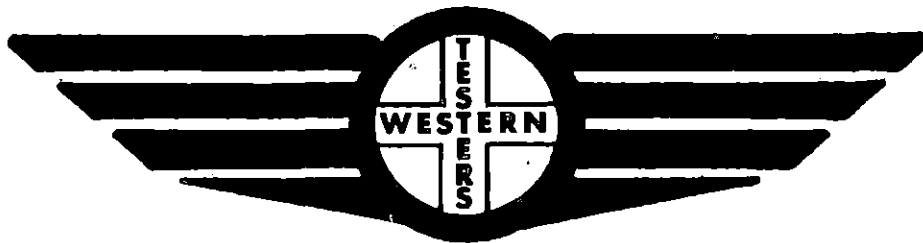
ORIGINAL

FORMATION TEST REPORT

RECEIVED
KANSAS CORPORATION COMMISSION

APR 02 1993

CONSERVATION DIVISION
WICHITA, KS



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

COMPANY DUKE DRILLING COMPANY INC LEASE & WELL NO. #1-21 WALTERS SEC. 21 TWP. 25SRGE. 9WTEST NO. 1 DATE 12/6/92

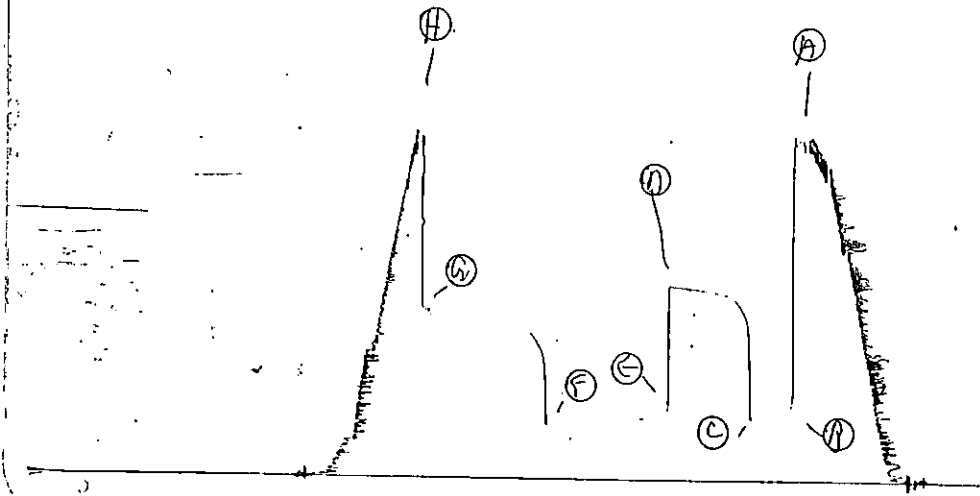
1057 DSF #1

KT 19249

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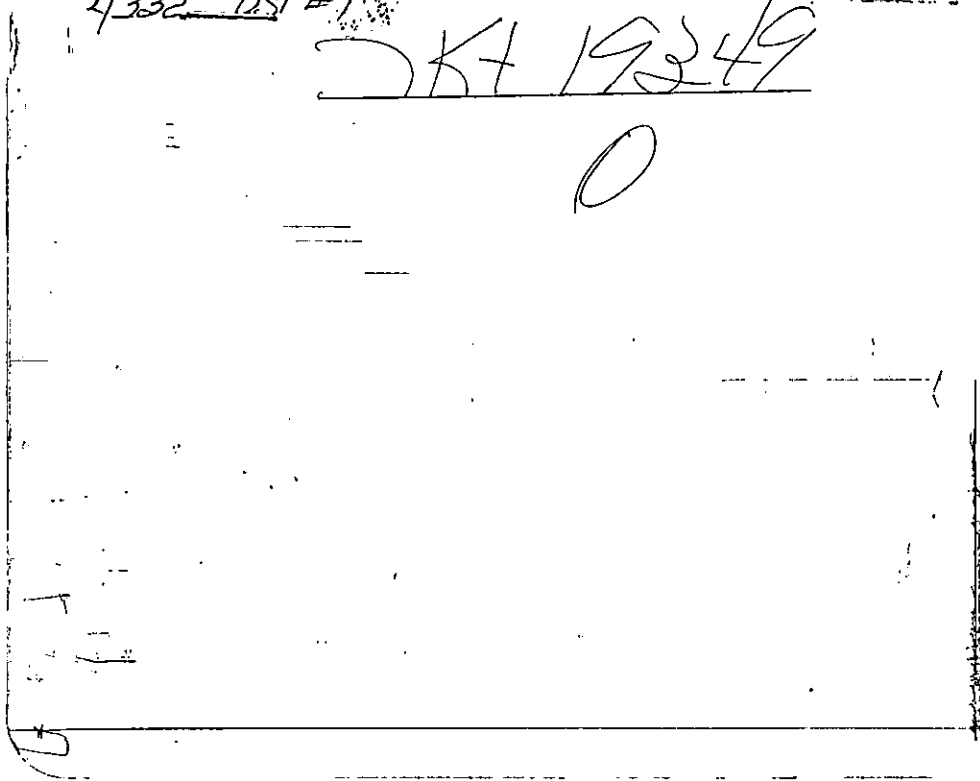


Inside Recorder

4332 DSF #1

KT 19249

O



Outside Recorder

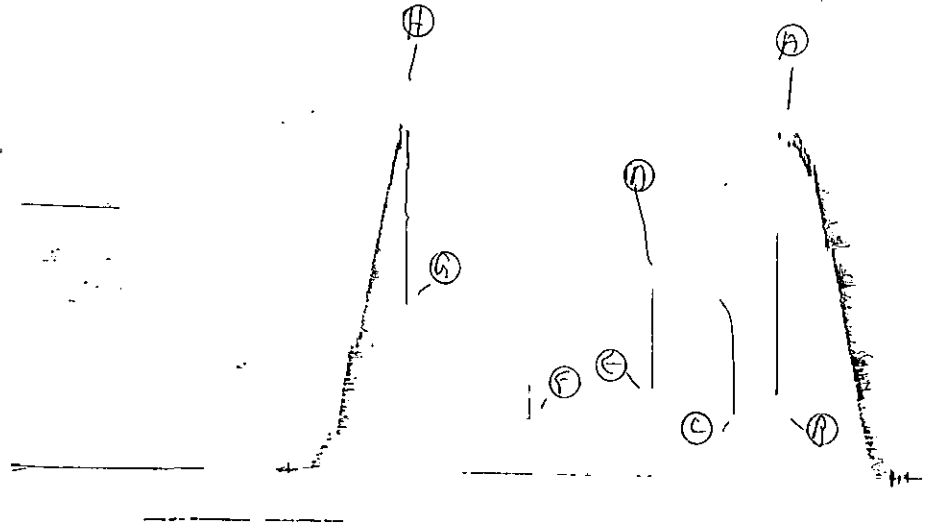
1051 DSF #1

KT 19217

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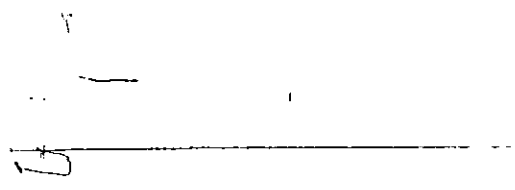


Inside Recorder

4332 DSF #1

KT 19249

O



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 12-6-92	TICKET : 19349	
CUSTOMER : DUKE DRILLING CO.	LEASE : WALTERS	
WELL : 1-21	TEST: 1	GEOLOGIST: JAMES B. PHILLIPS
ELEVATION: 1664 K.B.		FORMATION: MISSISSIPPI
SECTION : 21		TOWNSHIP : 25S
RANGE : 9W	COUNTY: RENO	STATE : KS
GAUGE SN#: 1051	RANGE : 4250	CLOCK : 12HR

WELL INFORMATION

PERFORATION INTERVAL FROM: 3832.00 ft	TO: 3853.00 ft	TVD: 3853
DEPTH OF SELECTIVE ZONE:		TEST TYPE: GAS
DEPTH OF RECORDERS: 3844.0 ft	3847.0 ft	
TEMPERATURE: 126.0		
DRILL COLLAR LENGTH: 0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH : 190.0 ft	I.D.:	2.250 in
DRILL PIPE LENGTH : 3620.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 21.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE : 0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE : 7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH: 3827.0 ft	SIZE:	6.625 in
PACKER DEPTH: 3832.0 ft	SIZE:	6.625 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : DUKE RIG #2		VISCOSITY : 52.00 cp
MUD TYPE : CHEMICAL		WATER LOSS: 11.600 cc
WEIGHT : 9.300 ppg		
CHLORIDES : 6000 ppm		SERIAL NUMBER:
JARS-MAKE : NONE		REVERSED OUT?: NO
DID WELL FLOW?: YES		

COMMENTS

Comment

INITIAL FLOW STRONG BLOW GTS IN 2 MINUTES
SEE FLOW CHART

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
150.0	0.0	20.0	0.0	80.0	GAS CUT MUD
250.0	0.0	0.0	100.0	0.0	WATER 93,000 P.P.M.

RATE INFORMATION

OIL VOLUME:	0.0000 STB		TOTAL FLOW TIME:	120.0000 min.
GAS VOLUME:	2.3627 SCF		AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	1.6832 STB		AVERAGE WATER RATE:	21.3108 STB/D
WATER VOLUME:	1.7759 STB			
TOTAL FLUID :	3.4591 STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1899.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	344.00	344.00
INITIAL SHUT-IN	60.00		1069.00
FINAL FLOW	90.00	355.00	301.00
FINAL SHUT-IN	90.00		942.00

FINAL HYDROSTATIC PRESSURE: 1877.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1892.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	465.00	340.00
INITIAL SHUT-IN	60.00		1069.00
FINAL FLOW	90.00	361.00	290.00
FINAL SHUT-IN	93.00		931.00

FINAL HYDROSTATIC PRESSURE: 1875.00

ORIGINAL

GAS FLOW REPORT

GENERAL INFORMATION

DATE	: 12-6-92	TICKET	: 19349
CUSTOMER	: DUKE DRILLING CO.	LEASE	: WALTERS
WELL	: 1-21	TEST:	1
ELEVATION:	1664 K.B.	GEOLOGIST:	JAMES B. PHILLIP
SECTION	: 21	FORMATION:	MISSISSIPPI
RANGE	: 9W	TOWNSHIP	: 25S
GAUGE SN#:	1051	STATE	: KS
		COUNTY:	RENO
		RANGE	: 4250
		CLOCK	: 12HR

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
02	MERLA	1.250	10PSI	802000 SCF/D
10	MERLA	1.250	10PSI	802000 SCF/D
20	MERLA	1.250	10PSI	802000 SCF/D
30	MERKA	1.250	10PSI	802000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10	MERLA	1.250	10PSI	802000 SCF/D
20	MERLA	1.250	10PSI	802000 SCF/D
30	MERLA	1.250	10PSI	802000 SCF/D
40	MERLA	1.250	8.5PSI	729000 SCF/D
50	MERLA	1.250	8PSI	700000 SCF/D
60	MERLA	1.250	7.5PSI	677000 SCF/D
70	MERLA	1.250	7PSI	653000 SCF/D
80	MERLA	1.250	7PSI	653000 SCF/D
90	MERLA	1.250	6.5PSI	626000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 12-6-92	TICKET : 19349
CUSTOMER : DUKE DRILLING CO.	LEASE : WALTERS
WELL : 1-21 TEST: 1	GEOLOGIST: JAMES B. PHILLIPS
ELEVATION: 1664 K.B.	FORMATION: MISSISSIPPI
SECTION : 21	TOWNSHIP : 25S
RANGE : 9W COUNTY: RENO	STATE : KS
GAUGE SN#: 1051 RANGE : 4250	CLOCK : 12HR

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	465.00	465.00
5.00	388.00	-77.00
10.00	360.00	-28.00
15.00	348.00	-12.00
20.00	344.00	-4.00
25.00	344.00	0.00
30.00	340.00	-4.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	778.00	778.00	0.00
6.00	911.00	133.00	0.00
9.00	953.00	42.00	0.00
12.00	985.00	32.00	0.00
15.00	1008.00	23.00	0.00
18.00	1021.00	13.00	0.00
21.00	1027.00	6.00	0.00
24.00	1032.00	5.00	0.00
27.00	1036.00	4.00	0.00
30.00	1041.00	5.00	0.00
33.00	1045.00	4.00	0.00
36.00	1049.00	4.00	0.00
39.00	1051.00	2.00	0.00
42.00	1055.00	4.00	0.00
45.00	1058.00	3.00	0.00
48.00	1061.00	3.00	0.00
51.00	1063.00	2.00	0.00
54.00	1065.00	2.00	0.00
57.00	1067.00	2.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
60.00	1069.00	2.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	361.00	361.00
5.00	348.00	-13.00
10.00	344.00	-4.00
15.00	342.00	-2.00
20.00	333.00	-9.00
25.00	303.00	-30.00
30.00	303.00	0.00
35.00	303.00	0.00
40.00	303.00	0.00
45.00	303.00	0.00
50.00	300.00	-3.00
55.00	300.00	0.00
60.00	300.00	0.00
65.00	297.00	-3.00
70.00	297.00	0.00
75.00	295.00	-2.00
80.00	295.00	0.00
85.00	290.00	-5.00
90.00	290.00	0.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	669.00	669.00	0.00
6.00	733.00	64.00	0.00
9.00	769.00	36.00	0.00
12.00	800.00	31.00	0.00
15.00	819.00	19.00	0.00
18.00	829.00	10.00	0.00
21.00	840.00	11.00	0.00
24.00	847.00	7.00	0.00
27.00	853.00	6.00	0.00
30.00	859.00	6.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
33.00	864.00	5.00	0.00
36.00	870.00	6.00	0.00
39.00	874.00	4.00	0.00
42.00	879.00	5.00	0.00
45.00	883.00	4.00	0.00
48.00	887.00	4.00	0.00
51.00	891.00	4.00	0.00
54.00	894.00	3.00	0.00
57.00	898.00	4.00	0.00
60.00	900.00	2.00	0.00
63.00	904.00	4.00	0.00
66.00	906.00	2.00	0.00
69.00	909.00	3.00	0.00
72.00	913.00	4.00	0.00
75.00	915.00	2.00	0.00
78.00	918.00	3.00	0.00
81.00	921.00	3.00	0.00
84.00	924.00	3.00	0.00
87.00	927.00	3.00	0.00
90.00	929.00	2.00	0.00
93.00	931.00	2.00	0.00



ORIGINAL

ANALYTICAL LABORATORY, INC.
424 Greenwood • Wichita, Kansas 67211 • (316) 269-4200

EXTENDED NATURAL GAS ANALYSIS

COMPANY NAME: DUKE DRILLING COMPANY LAB# 9214504
 SAMPLE ID: WALTERS 1-21
 SETT #: N/A
 COUNTY: N/A LEGAL LOCATION: N/A--
 DATE SAMPLED: N/A 0 SAMPLER: WESTERN
 SAMPLE PRESSURE: N/A TEMPERATURE (F): N/A
 DATE ANALYZED: DECEMBER 9 1992
 QUALITY CONTROL DATE: DECEMBER 9 1992

*****ANALYSIS*****CALCULATED AT 14.65 PSIA. AT 60 F**NORMALIZED*****

HYDROCARBONS	MOLAL%	LIQUID VOLUME%	BTU AMOUNT	GPM
METHANE	77.27	73.27	777.98	0
ETHANE	6.51	9.74	114.84	0
PROPANE	3.35	5.16	84.03	.92
ISO-BUTANE	.43	.79	13.94	.14
NORMAL-BUTANE	1.03	1.82	33.5	.32
ISO-PENTANE	.23	.47	9.17	.08
NORMAL-PENTANE	.31	.63	12.39	.11
3-METHYLPENTANE	*			
2,3-DIMETHYLBUTANE	*			
2-METHYLPENTANE	*			
CYCLOPENTANE	*			
NORMAL HEXANE	*			
HEXANES+	.85	1.97	42.92	.37
NITROGEN	9.19	5.62	0	0
OXYGEN	0	0	0	0
CARBON DIOXIDE	.05	.05	0	0
HELIUM	.78	.44	0	
HYDROGEN	TRACE (<.01)			
TOTALS*****	100	100	1088.77	1.94

BTU/FT³ DRY (IDEAL GROSS): 1088.77
 BTU/FT³ SATURATED (IDEAL GROSS): 1070.6
 IDEAL SPECIFIC GRAVITY: .7071
 COMPRESSIBILITY: .9972
 GPM: 1.94
 *=COMBINED WITH HEXANES+

RESPECTFULLY SUBMITTED

Robert D. Finkbeiner

PRIORITY ANALYTICAL LAB

MAR 31 '93 11:56

382 P02

ORIGINAL

Phone 913-483-2677, Russell, Kansas

Phone Plainville 913-434-2812

Phone 316-793-5861, Great Bend, Kansas

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

2871

Home Office P. O. Box 31

Russell, Kansas 67665

New

Date	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish
12-1-92	21	25	9	10:30 AM.	2:30 PM.	4:30 PM.	5:00 PM
Well No. #1	Location			County		State	
Walter-Malm	London, 7/4 E 2061, 1/2 N, W/5			RENO		KS.	

Contractor	Duke Rig #2
Type Job	Surface
Hole Size	12 1/2" T.D. 227'
Cap	8 3/8" Depth 226'
Tbg. Size	Depth
Drill Pipe	Depth
Tool	Depth
Cement Left in Cap	15' Shoe Joint
Press Max.	Minimum
Mass Line	Displace 13 3/4 bbl.
Perf.	

EQUIPMENT

#	No.	Cementer	Helper
Pumpjack	181	Jim	Carry
#	No.	Cementer	Helper
Pumpjack			
#	No.	Driver	
Bulkhead	101	Rick B.	
#	No.	Driver	
Bulkhead			

DEPTH of Job:	
Reference:	Run HTRK Charge
	Run HTRK Mileage
	8" Wooded Plug

Remarks: Cement Dip Circulate.
 Cement circulated when
 banded Plug

Thanks

Owner SUMR
 To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish
 cementer and helper to assist owner or contractor to do work as listed.

Charge To: Duke Drilling CO, INC.
 Street Box 823
 City Great Bend State KS 67530
 The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.
 X John P. Armbruster

CEMENT

Amount Ordered 160 SKS 60% / 10 3200 2262

Consisting of	
Common	96
Poz. Mix	64
Gel.	3
Chloride	5
Quickset	

Handling
 Mileage

Floating Equipment

RECEIVED
 STATE CORPORATION COMMISSION
 APR 5 1993
 CONSERVATION DIVISION
 Wichita, Kansas

Allied Cementing
 By Tom Dickson

Phone Plainville 913-434-2812

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

5856

Office P.O. Box 31, Russell, Kansas 67665

Date	3/27/93	Time	2:00 P.M.	On Location	4:00 P.M.	Job Start	9:30 P.M.	Finish	10:30 P.M.
Location	Well No. 23	County	Ellis	State	Ks.	City	Reno	State	Ks.

Drill Pipe 1/2" X-Hole
 Depth 4000
 Cement Left in Casing
 Shoe Joint 3.15
 Minimum 600
 Displace 9 1/2 BBLS

Owner Duke Drilling
 To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
 Charge To Duke Drilling Co., Inc.
 Street Box 823
 City Great Bend State Ks 67530
 The above was done to satisfaction and supervision of owner agent or contractor.
 Purchase Order No.
 X Casey boots
 60/40 CEMENT
 2555ks. 50% Gel

EQUIPMENT
 Accu Drilling
 Max Wolf
 Driver
 Max Wolf

Amount Ordered 17555ks. 50% Gel
 Consisting of 75 75 75 C
 500 gal Mud
 500 gal Seal
 Common 15
 Poz Mix 990
 1.75 75 C
 5 gal 2
 500 gal
 COAL SEAL 815

Started 11:50 AM
 ad In 5 min. Release Plug.
 apt Fresh H₂O Oils placement. PSI
 release. Decrease rate. Bump Plug.
 apt Held. Plug rat hole and mouse hole.

1- Reg. Guide Shoe (w)
 1-AFU Insert (w)
 1-Basket (B)
 5-Centralizers (w)

RECEIVED
 STATE CORPORATION COMMISSION
 APR 5 1993
 CONSERVATION DIVISION
 Wichita, Kansas